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ABSTRACT

This library handbook is a guide for the engineering student. It lists some of the more useful materials and reference books basic to general research and gives their location in the Folger Library at the University of Maine. Materials are listed in three categories: (1) general reference works--dictionaries, encyclopedias, and handbooks; (2) engineering fields--chemical, civil, electrical, and mechanical engineering; and (3) abstracts and indexes. Some items are annotated. (Author/AWP)

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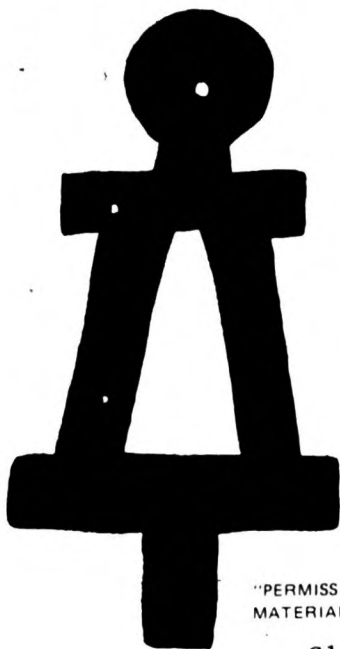
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# How to find out

in:  
ENGINEERING

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## ENGINEERING

COVER: The symbol on the cover is the badge of the engineering honor society, Tau Beta Pi

Compiled by the Reference Department:  
Jean Campana

1976

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### GENERAL REFERENCE

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## THE CARD CATALOG

A note on using the card catalog:

To simplify use of the card catalog when  
looking for a particular subject use:

Library of Congress. Subject Headings

Lists correct subject headings and gives alternatives  
or related headings. Extremely valuable tool.  
Eliminates searching in too broad or dead-end areas.  
(Located at the Card Catalog or Reference Desks)

### LIBRARY OF CONGRESS CLASSIFICATION SYSTEM

QA	Mathematics
QC	Physics
QD	Chemistry
TA	Engineering (general)
TA	Civil Engineering
TC	Hydraulic Engineering
TD	Sanitary and Municipal Engineering
TE	Roads and Pavements
TF	Railroad Engineering
TG	Bridge and Roof Engineering
TJ	Mechanical Engineering
TK	Electrical and Electronic Engineering
TL	Motor Vehicles
TN	Mining Engineering
TP	Chemical Technology
Z	Bibliography

### DEWEY CLASSIFICATION SYSTEM

510	Mathematics
530	Physics
540	Chemistry
600	Technology
620	Engineering and Allied Sciences
622	Mining Engineering and Operations
624	Civil Engineering
625	Railroads and Highway
627	Hydraulic Engineering
628	Sanitary and Municipal Engineering

This library guide is an informal handbook for the Engineering student. It lists some of the more useful materials and reference works basic to general research and gives their locations in the Fogler Library.

## GENERAL REFERENCE

### DIRECTORIES

- |      |   |
|------|---|
| Ref  | Thomas' register of American manufacturers.   |
| T    | New York, Thomas Publ. Co. Annual,  |
| 12   | Multivolume set.  |
| T6   | Contains product classifications, list of leading manufacturers, trade names.                                     |
|      |   |
| Ref  | <u>Industrial research laboratories of the</u>  |
| T    | <u>United States.</u> New York, R.R. Bowker   |
| 176  | Co., 1975.  |
| N35  | Brief descriptions of non-governmental research laboratories. Includes geographic, personnel and subject indexes. |
|      |   |
| Ref  | <u>Municipal index.</u> Pittsfield, Mass,   |
| TD   | Buttenhem Publ. Co. Annual.   |
| 1    | The purchasing guide for city, town-  |
| M927 | ship, county officials and consulting   |
| 1975 | engineers.  |
|      |   |
| Ref  | <u>Environmental protection directory: a</u>  |
| TD   | <u>comprehensive guide to environmental</u>   |
| 12   | <u>organizations in the United States and</u>   |
| E54  | <u>Canada.</u> Chicago, Marquis Academic Media.   |
| 1975 |   |
|      |   |
| Ref  | <u>Chem sources - U.S.A.</u> New York, Direc-   |
| TP   | tories Publ. Co., 1976.   |
| 12   | Source guide to products of U.S. chemical industry. Lists common chemicals  |
| C44  | and rare, commercially available chemicals not advertised elsewhere.  |

## GENERAL REFERENCE

### DIRECTORIES (Cont'd.)

- Ref      Lockwood's directory of paper and allied  
TS      trades. New York, Bulkley Dunton Pulp  
1088      Co., Inc., 1975.  
L82      Gives information on Canadian pulp  
         and paper manufacturers as well as  
         those in U.S.

### ENCYCLOPEDIAS

- Ref      McGraw-Hill encyclopedia of science and  
Q      technology. New York, McGraw-Hill, 1971+  
121      Comprehensive coverage of the physical,  
1971      natural and applied sciences. Includes  
         bibliographies.
- Ref      Encyclopaedic dictionary of physics.  
QC      New York, Pergamon Pr., 1961+  
5      Covers all areas of physics and related  
E52      subjects.
- Ref      Encyclopedia of industrial chemical  
QD      analysis. New York, Wiley-Interscience,  
131      1966+  
E5      Methods and techniques in laboratory  
         control and testing in chemical analysis.
- Ref      Kirk-Othmer encyclopedia of chemical  
TP      technology. New York, Wiley-Interscience,  
9      1963-1972.  
E685      Deals with chemical substances and  
         chemical processes. Also includes  
         material on general topics such as  
         chemical literature, computers and  
         patents.
- Ref      Encyclopedia of polymer science and tech-  
TP      nology; plastics, resins, rubbers, fibers.  
156      New York, Wiley-Interscience, 1964+  
P6E5      A companion encyclopedia to the title  
         above. More specialized with emphasis  
         on polymers.

## HANDBOOKS

- Ref Trelease, Sam. How to write scientific  
PE and technical papers. Baltimore, Williams  
1475 and Wilkins, 1958.  
T67 Easy to follow directions on writing  
up data.
- Ref Burrington, Richard S. Handbook of mathe-  
QA matical tables and formulas. New York,  
47 McGraw-Hill, 1973.  
B8 A basic handbook for the fields of  
mathematics, engineering, physics and  
chemistry.
- Ref Handbook of chemistry and physics. Cleve-  
QD land, CRC Pr. Annual,  
65 A ready reference book of chemical and  
H3 physical data.
- Ref Sax, Newton Irving. Dangerous properties  
T of industrial materials. New York,  
55.3 Van Nostrand Reinhold Co., 1975.  
H3 Hazard analysis information about common  
U49 industrial and laboratory materials and  
counter measures to mitigate the effect  
of using a given material.
- Ref Arnell, Alvin. Standard graphical symbols:  
TA a comprehensive guide for industry, en-  
11 gineering and science. New York, McGraw-  
A7 Hill, 1963.  
All symbols reproduced are taken directly  
from standards published by a specific  
technical or engineering society.
- Ref CRC handbook of tables for applied en-  
TA gineering science. Cleveland, CRC Pr.,  
151 1973.  
C2 Covers applied chemistry, nuclear engi-  
1973 neering, thermodynamics and many other  
topics.

## HANDBOOKS (Cont'd.)

- Ref Juran, Joseph M. Quality control handbook.  
TS New York, McGraw-Hill, 1974.  
156 How to attain and maintain quality in an  
Q3 industry, a product or a process.  
J8

## STANDARDS

- Ref American Society for Testing and Materials.  
TA Book, A.S.T.M. standards. Philadelphia.  
401 Annual.  
A653 Multivolume set that contains current,  
formally approved ASTM standards,  
methods of testing, definitions and  
other related materials.
- Ref Callender, John Hancock, ed. Time-saver  
TH standards for architectural design. New  
151 York, McGraw-Hill, 1974.  
T55 Intended primarily to meet the needs of  
1974 those who design buildings. May also be  
used for construction and maintenance.
- Ref American Society of Heating, Refrigerating  
TH and Air Conditioning Engineers, Inc.  
7011 ASHRAE standards. New York.  
A43 Updated and revised.
- Ref Underwriters Laboratories. Standards for  
TK safety. Chicago.  
152 Continually revised and updated standards  
U53 for fire protection.
- Ref Technical Association of the Pulp and  
TS Paper Industry. (TAPPI) Standards and  
1080 suggested methods. New York.  
T352 Periodically updated standards and pro-  
visional methods that have received  
recognition by this society.

## ENGINEERING FIELDS

### CHEMICAL ENGINEERING

- Ref Considine, Douglas M. Chemical and process technology encyclopedia. New York, TP McGraw-Hill, 1974.  
9  
C49 One volume reference work. Material on organic, inorganic and physical chemistry and on chemical, metallurgical and process engineering.
- Ref Elsevier's dictionary of chemical engineering. Amsterdam, New York, 1968.  
TP  
9 In six languages. English/American-French-Spanish-Italian-Dutch-German.  
E38
- Ref Gardner, William, ed. Chemical synonyms and trade names: a dictionary and commercial handbook. 7th ed. Cleveland, TP CRC Pr.  
9  
G28  
1971b
- Ref Perry and Chilton, eds. Chemical engineer's handbook. 5th ed. New York, TP McGraw-Hill.  
151  
C52 Basic handbook for chemical engineering students.  
1973
- Ref Faith, William L. Industrial chemicals. New York, John Wiley and Sons, 1965.  
TP  
200 A book of processes for industrial chemicals with listings of manufacturers and plant sites.  
F3
- Ref Modern plastics encyclopedia and engineer's TP handbook. New York, Plastics Catalogue Corp. Annual.  
986  
A1M62 Includes data about materials and processes, specification data on materials and equipment, and directory of suppliers.

## CIVIL ENGINEERING

- Ref Hammond, Rolt. Dictionary of civil en-  
TA gineering. New York, Philosophical  
9 Library, 1965.  
H3  
1965
- Ref Merritt, Frederick S., ed. Standard  
TA handbook for civil engineers. New York,  
151 McGraw-Hill, 1968.  
S8 Basic handbook for civil engineering  
students.
- Ref Lynch, Charles T., ed. CRC handbook of  
TA materials science. Cleveland, CRC Pr.,  
403.4 1974. 2 vols.  
L94 v.1 general properties  
v.2 metals composites and refractory  
materials
- Ref La Londe, Jr., William S., ed. Concrete  
TA engineering handbook. New York, McGraw-  
439 Hill, 1961.  
L28 Gives practical information in the  
field of reinforced concrete. For  
civil engineers interested in design and  
construction of buildings and bridges.
- Ref Gaylord, Jr., Edwin H., ed. Structural  
TA engineering handbook. New York, McGraw-  
635 Hill, 1968.  
G3 Covers wide range of structures, design  
in various media, soil mechanics, found-  
ations, etc.
- Ref Davis, Calvin V., ed. Handbook of  
TC applied hydraulics. New York, McGraw-  
145 Hill, 1969.  
D3

## CIVIL ENGINEERING (Cont'd.)

- Ref Liptak, Bela, ed. Environmental  
TD engineer's handbook. Radnor, PA., Chilton  
145 Book Co., 1974. v.1  
D3 First volume of series is on water  
pollution.
- \  
Ref American Water Works Association. Water  
TD quality and treatment; a handbook of  
430 public water supplies. New York, McGraw-  
A6 Hill, 1971.
- Ref Baker, Robert F., ed. Handbook of high-  
TE way engineering. New York, Van Nostrand  
151 Reinhold, 1975.  
B24 A reference book of principles, pro-  
cesses and data for those interested in  
the application of technology to high-  
way transportation.
- Ref Merritt, Frederick S. Building con-  
TH struction handbook. 3d ed. New York,  
151 McGraw-Hill, 1975.  
M4  
1975

## ELECTRICAL ENGINEERING

- Ref Institute of Electrical and Electronics  
TK Engineers. IEEE standard dictionary of  
9 electrical and electronics terms. New  
York, Wiley-Interscience, 1972.
- Ref Watt, John H., ed. American electricians'  
TK handbook; a reference book for the  
151 practical electrical man. New York,  
A47 McGraw-Hill, 1970.  
1970
- Ref Fink, Donald C., ed. Standard handbook  
TK for electrical engineers. 10th ed.  
151 New York, McGraw-Hill, 1968.  
S83 Basic handbook for electrical engineering  
1968 students.
- Ref International Telephone and Telegraph Corp.  
TK Reference data for radio engineers. New  
6552 York, 1968.  
F4  
1968
- Ref Harper, Charles A., ed. Handbook of  
TK materials and processes for electronics.  
7836 New York, McGraw-Hill, 1970.  
H37
- Ref Harper, Charles A., ed. Handbook of  
TK electronic packaging. New York, McGraw-  
7870 Hill, 1969.  
H284 Data, guidelines and other facts needed  
by engineers in the field of electronic  
packaging. Companion volume to title  
above.
- Ref Tremaine, Howard M. Audio cyclopedia.  
TK Indianapolis, H.W. Sams, 1969.  
7881.4 Information on stereo, acoustics,  
T7 motion picture projection equipment,  
1969 optical film recording etc. Question  
and answer format.

## MECHANICAL ENGINEERING

- Ref American Society for Metals. Metals hand-  
TA book. Cleveland, OH, 8th ed. 10 vols.,  
459 1961+  
A5 Each volume in set is devoted to one  
aspect of metals science.
- Ref American Society of Heating, Refriger-  
TH ating and Air-Conditioning Engineers.  
7225 ASHRAE handbook of fundamentals. New  
A537 York, 1972.  
1972 Contains sections on theory, general  
engineering data, basic materials,  
load calculations, etc.
- Ref Naylor, Joseph L. Dictionary of mechani-  
TJ cal engineering. New York, Hart Publ.  
9 Co., 1967.  
N3
- Ref Oberg, Erik. Machinery's handbook; a  
TJ reference book for the mechanical  
151 engineer, craftsman, toolmaker, and  
M3 machinist. New York, Industrial Press  
Inc., 1975.
- Ref Parrish, A., ed. Mechanical engineer's  
TJ reference book. London, Butterworths,  
151 1973.  
P35  
1973
- Ref Marks, L.S. & T. Baumeister, eds.  
TJ Standard handbook for mechanical engineers.  
151 7th ed., New York, McGraw-Hill, 1967.  
S82 Basic handbook for mechanical engineering  
1967 students.
- Ref American Soc. of Tool & Manufacturing  
TJ Engineers. Tool engineers' handbook; a  
1125 reference book on all phases of planning,  
A52 control, design, tooling and operations in  
1959 the manufacturing industries. New York,  
McGraw-Hill, 1959.

## ABSTRACTS AND INDEXES

An index supplies bibliographic citations to articles, books, papers, etc.

An abstract supplies all the information above plus summaries.

All abstracts and indexes listed below are in the Periodicals Reference Area (Per-R) in the Reference Room.

- Per-R     Applied mechanics reviews. v.1, 1948+  
Reviews of world literature in applied mechanics and related engineering sciences.
- Per-R     Applied science and technology index.  
v.46, 1958+  
Indexes journals published in the U.S. and Canada in the fields of automation, chemistry, engineering and many other subjects. Easy to use.
- Per-R     Chemical abstracts. v.1, 1907+  
Abstracts chemical literature of the world. Includes patent concordance, formula and ring systems indexes.
- Per-R     Computer and control abstracts. v.2, 1967+  
Published jointly by British and American engineering societies. Most comprehensive work in field.
- Per-R     Electrical and electronic abstracts.  
v.6, 1903+  
Also published by British and American engineering societies. Many cross references between this publication and Computer and Control Abstracts.

## ABSTRACTS AND INDEXES (Cont'd.)

- Per-R**      Electronics and communications abstracts journal. v.1, 1968+  
Covers material in electronic physics, electronic systems and circuits; electronic devices; communications.
- Per-R**      Engineering index. 1884+  
Most important reference tool for engineering students. Indexes all important literature in the field of engineering.
- Per-R**      Institute of paper chemistry. Bulletin. v.1, 1930+  
Covers periodicals, books and dissertations relating to the paper industry.
- Per-R**      Metals abstracts. v.3, 1970+  
Abstracts are grouped under seven main sections representing branches of metals science, engineering and technology.
- Per-R**      Theoretical chemical engineering abstracts. v.7, 1970+  
Abstracts on fluid dynamics, heat transfer, kinetics and thermodynamics and other related subjects.
- Per-R**      Transportation research abstracts. v.27-45, 1957-1975. Volumes 27 to 44 #5, 1957-1974 as Highway Research Abstracts  
Covers material on transportation in U.S. and Europe. Does not index Highway Research Record.